

The Building Regulations 2000

Conservation of fuel and power

L2

APPROVED DOCUMENT

L2 Conservation of fuel and power in buildings other than dwellings

Coming into effect 1 April 2002

The Stationery Office

2002 EDITION

MAIN CHANGES IN THE 2002 EDITION

- 1 This Approved Document L2 replaces the content of the 1995 edition of Approved Document L that relates to buildings other than dwellings. The main changes made by the Building (Amendment) Regulations 2001 and in the guidance in this document are as follows.

Changes in the requirements

- 2 Part L of Schedule 1, which sets out the legal requirements for the conservation of fuel and power in buildings, has been subdivided into Part L1, covering dwellings, and Part L2, covering other types of buildings. This Approved Document only gives guidance on complying with Part L2.
- 3 The requirements now address the summer performance of buildings through provisions for limiting exposure to solar overheating and heat gains through the fabric.
- 4 The requirement applying to heating and hot water systems has been changed to encompass overall system performance rather than just controls. This means that boiler seasonal efficiency and inspection and commissioning are now covered.
- 5 New requirements have been introduced to address the performance of air conditioning and mechanical ventilation systems that serve floor areas of more than 200 m², and the insulation of cold air distribution ducting and chilled water and refrigerant services.
- 6 The requirement applying to lighting systems has been changed to encompass luminaires in some types of buildings as well as lamp performance, but the limit on application to floor areas in excess of 100 m² remains unchanged.
- 7 A new requirement calls for information to be provided to enable building occupiers to operate and maintain the building and its services effectively.
- 8 In Regulation 2 the definition of controlled service has been expanded to include services and fittings in relation to which Part L2 imposes a requirement. This means that replacement work in existing buildings on windows and other glazed elements, and the heating, hot water, air conditioning, mechanical ventilation and lighting services are now controlled.
- 9 Regulation 18 is amended to enable local authorities to test the compliance of buildings and controlled services and fittings for compliance with the technical requirements in Part L2.

Changes in the technical guidance

- 10 A summary guide to the use of this Approved Document L2 (ADL2) is given at page 5. In mixed-use development, where dwellings are proposed as well as other buildings, it will be necessary to consult Approved Document L1.
- 11 The provisions for allowing lesser performance when buildings have low levels of heating and use are retained but they are now included in a sub-section of special cases which also addresses historic buildings and buildings constructed from sub-assemblies to meet temporary accommodation needs.

- 12 The Elemental Method now includes building airtightness, avoiding solar overheating, heating system efficiency, lighting and air conditioning and mechanical ventilation (ACMV) as well as fabric insulation and includes limited provisions for trading off between the performance standards:-
 - The standards of fabric insulation have improved by changing the methods of calculating U-values to those in the European Standards and by setting lower (i.e. better) values. Metal windows are given some credit for their thinner framing members and hence the increased useful winter solar gain.
 - The guidance on reducing thermal bridging has been improved and new guidance is given on reducing unwanted air leakage. A way of achieving compliance with these requirements is to adopt robust construction detail designs.
 - New guidance is given for limiting exposure to solar gain including calculations and performance criteria supported by a new Appendix H. New guidance is also given on conservatories, atria and similar sun-spaces.
 - For lighting systems there are new performance standards for luminaires in offices and storage buildings (supported by a new Appendix F) and for display lighting in all buildings.
 - For ACMV systems a new Carbon Performance Rating Method of showing compliance (supported by a new appendix G) is given.
- 13 The Calculation Method and Energy Use Method have been replaced by the Whole-building Method and the Carbon Emissions Calculation Method that assess potential annual carbon emissions (one more rigorously than the other).
- 14 New guidance is given on:-
 - testing thermal insulation continuity and airtightness of buildings,
 - commissioning of heating, hot water, lighting and ACMV systems, and
 - producing information and the provision of energy meters that enable building occupiers to operate and maintain the building effectively.
- 15 The guidance on material alterations and changes of use has been placed in a new section along with guidance on work on controlled services in existing buildings and the guidance relevant to conservation and restoration work in historic buildings.
- 16 Section 2 suggests the provision of certificates or declarations of compliance from suitably qualified persons, in relation to building fabric and building services systems.

Approved Documents

The following documents have been approved and issued by the Secretary of State for the purpose of providing practical guidance with respect to the requirements of the Building Regulations 2000.

Approved Document A – Structure: 1992 Edition, fourth impression (with amendments) 1994, further amended 2000

Approved Document B – Fire safety: 2000 Edition, amended 2000

Approved Document C – Site preparation and resistance to moisture: 1992 Edition, second impression (with amendments) 1992, further amended 2000

Approved Document D – Toxic substances: amended 1992, further amended 2000

Approved Document E – Resistance to the passage of sound: 1992 Edition, second impression (with amendments) 1992, further amended 2000

Approved Document F – Ventilation: 1995 Edition, amended 2000

Approved Document G – Hygiene: 1992 Edition, second impression (with amendments) 1992, further amended 2000

Approved Document H - Drainage and waste disposal: 2002 Edition

Approved Document J – Combustion appliances and fuel storage systems: 2002 Edition

Approved Document K – Protection from falling, collision and impact: 1998 Edition, amended 2000

Approved Document L1 – Conservation of fuel and power in dwellings: 2002 Edition

Approved Document L2 – Conservation of fuel and power in buildings other than dwellings: 2002 Edition

Approved Document M – Access and facilities for disabled people: 1999 Edition, amended 2000

Approved Document N – Glazing - safety in relation to impact, opening and cleaning: 1998 Edition, amended 2000

Approved Document to support regulation 7 – materials and workmanship: 1999 Edition, amended 2000